2. PHONOLOGY

2.0. Introduction. The phonological description which constitutes this chapter begins with an introduction to the traditional phonemes and their subphonemic variants. The essentially phonemic orthography is equally well-suited to representing the necessary surface contrasts and the underlying forms which can be posited on the basis of morphophonological alternations. That the orthography serves both purposes reflects no lack of complexity in the phonology of Kiowa but is instead the result of the relatively non-abstract approach I have taken. In only a few cases is the underlying form of a morpheme not one of the actually occurring allomorphs.

Although the status of the segmental phonemes has been established for some time, with the exception of glottal stop (see, e.g., Wonderly, Gibson and Kirk (1954), Sivertsen (1956), Merrifield (1959a), and Trager (1960)[1] for their inventories of phonemes), problems in analyzing tone, vowel length, consonant-glide clusters and laryngeal features have not been entirely resolved. Only Sivertsen (1956) has provided detailed discussion and conclusions about suprasegmental phenomena. These more controversial aspects of Kiowa phonology have been given special attention.

Phonological rules which describe the segmental alternations of morphemes are brought together in 2.7. They vary in generality from entirely automatic alternations to alternations for which a morphological as well as a phonological environment must be specified. The latter type is far more common. Alternations which appear to have been phonological in origin but which are so irregular as to defy generalization in phonological terms are discussed in the sections in which the morphemes are presented.

2.10. Phonemes.

2.11. Consonant inventory.

Table 1: Consonants

	Labial	Dental	Alveolar	Palatal	Velar	Laryngeal
Stops						
Ejective	p'	t'			k'	
Aspirated	p^h	t^h			k^h	
Voiceless	p	t			k	(ʔ)
Voiced	b	d			g	
Affricates						
Ejective			c'			
Voiceless			c			
Fricatives						
Voiceless			s			h
Voiced			z			
Resonants						
Nasal	m	n				
Liquid		l				
Glide				y		

Contrasts among the consonants are easily demonstrated with an abundance of minimal and near-minimal pairs. There are no contrasts between the presence of initial glottal stop and its absence (see 2.3 for discussion).

(1)	/p'/	p'í·	'female's sister'		p'ó·	'river, stream'
	/p^h/	p^hí·	'fire; hill; heavy'		p^hó·-	'body hair'
	/p/	pɬ́·-	'food/eating'		pó·	'eat'
	/b/	bɬ́·-	'foggy'		bó·	'bring'
	/t'/	t'áp	'deer'		t'ó·	'cold'
	/t^h/	t^háp	'dry'		t^hó·	'lap'
	/t/	tá·-	'eye'		tó·	'tepee, house'

(1)	/d/	dá	'must'	dó·	'hold, wear'
	/k'/	k'í·	'male, husband'	k'úl	'be lying pl'
	/k^h/	k^hí·-	'day'	k^hûl	'pull off'
	/k/	kí·	'meat'	kûy	'coyote'
	/g/	gį́·-	'night'	gúy	'outside'
	/c'/	c'é·	'thick'	c'ó·	'rock, stone'
	/c/	cé·	'short'	có·-	'be lying sg'
	/s/	sép	'descend; sew'	són	'grass'
	/z/	zép	'flow; breast'	zón	'pull out'
	/h/	hé·bà	'enter'	hón-	'last, end'

The ejective and aspirated stops are articulated forcefully. The unaspirated voiceless stops are tense, while the voiced stops are lax.[2]

The alveolar affricates /c'/ and /c/ are always [ts'] and [ts] respectively. The series is thus defective with respect to the non-continuant obstruents in lacking aspirated *$\underline{c^h}$ and voiced *$\underline{z}$.

The voiceless alveolar fricative /s/ is pronounced [š] before /y/ (see 2.4 for discussion of $\underline{Cy}$ clusters).

(2)	/sét/	[sét]	'bear'
	/syân/	[šį̂n?]	'be small pl'
	/sân/	[są̂n?]	'child'

The lateral /l/ is realized as [l] in syllable-initial position, as lightly affricated [^{d}l] in syllable-final position, and slightly devoiced in utterance-final position [$^d_\circ$l]. /l/ does not occur word-initially.

(3)	/cé·lê·/	[cé·^{y}lê·^{y}]	'set/ipf/hsy sg/obj'
	/gúldɔ̀·/	[gú^{d}ldɔ̀·]	'be red, painted'
	/sál/	[sá$^d_\circ$l]	'be hot'

The dental resonants /l/ and /n/ are palatalized before /i/.

(4) /t^{h}àlí·/ [t^{h}àl^{y}ɪ́·] 'boy'
/bǫ́·nɪ̂·/ [bǫ́·^{w}n^{y}ɪ̂·] 'see/ipf/hsy'

The phone [w] occurs in a very few interjections and loanwords, the latter mostly unassimilated Comanche terms.

(5) [wɪ̨·stè] (exclamation of dismay, as in missing a shot)
[wáhò] (nonsense syllables in lullabies)
[wé·] (old word of welcome to travelers)

2.12. Vowel inventory. Kiowa distinguishes six vowel qualities, with three distinctive levels of height and a front-back contrast. All six vowels may be long or short, oral or nasal. Four of the vowels occur as diphthongs with a high front offglide.

Table 2: Vowels

	Front	Back	Diphthongs	
High	i	u		uy
Mid	e	o		oy
Low	a	ɔ	ay	ɔy

The contrastive status of vowel length is a complex matter and will be discussed more fully in 2.5. Nasal vowels contrast with oral vowels in a straightforward fashion.

(6) /i·/ kí· 'meat' /ɨ·/ kɪ̨· 'pull'
/e·/ pé· 'dead' /ę·/ pę̂· 'turkey'
/a·/ tá·- 'eye' /ą·/ tą́· 'star'
/u·/ gú· 'wise' /ų·/ gų́· 'horn'
/o·/ tó· 'tepee' /ǫ·/ tǫ́·- 'talk, say'
/ɔ·/ ɔ́· 'gamble' /ǫ̨·/ ǫ̨́· 'give'

Any vowel adjacent to a nasal consonant in the same syllable is nasalized, as in the following non-alternating forms. Nasalization also spreads phonetically across sonorants.[3]

Watkins, Laurel J. 1984. A Grammar of Kiowa.
Lincoln: University of Nebraska Press.